ABSTRACT

An end host in a peer-to-peer system stores identifiers for both its peers and the neighbors of its peers. When the IP address of the end host and one of the peers changes, the end host's new IP address can be sent to each neighbor of the peer so that communication between the end host and the peer will not be lost. The order in which the neighbors of the peer are stored can be prioritized for faster delivery of the end host's changed IP address to the peer. The prioritizing can be by available bandwidth of the neighbors, proximity of the neighbors, trust between the peer and its neighbors, the probability that the IP address of the neighbors will change, etc. Proximity of the peers from each other and the end host can be a function of the identifier, which can be generated from a public key.